

LOZOVSKY, B.
LOZOVSKY, B., SALOMONOVICH, A. and KOSCHENKO, V. (USSR)

"Observations of radio brightness of the lunar disk on ~~cm~~ and ~~cm~~ waves"

report presented at the Intl. Astronomical Union's Symposium on the Moon,
Leningrad, 6 Dec 60.

LOZOVSKIY, D.M.; TALAYEVA, G.V.

Apparatus manufactured from coal graphite materials. Khim.
volok. no.1:65-67 '65. (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokna.

MEKLER, L.B., LAPTEVA, N.N., LOZOVSKIY, D.V.

Secretion of toxic protein from the blood serum in schizophrenia;
preliminary communication. Zhur.nevr. i psikh. 58 no.6:703-704 '58
(MIRA 11:7)

1. Kafedra patologicheskoy fiziologii (zav. - prof. P.D. Dorizontov)
TSentral'nogo instituta usovershenstvovaniya vrachey i Nauchno-issle-
dovatel'skiy institut psikiatrii (dir. prof. D.D. Fedotov) Ministerstva
zdravookhraneniya SSSR, Moskva.

(SCHIZOPHRENIA, blood in,

taraxein, isolation & tox. eff. in mice (Rus))

(BLOOD PROTEINS, in var. dis.

taraxein in schizophrenia, isolation & tox. eff. in mice
(Rus))

VYNOKUROV, S. I., GURAL', L. L., LOZOVSKIY, D. V.

Phytoncides

Biochemical characteristics of the protistocidal action of some phytoncides, Ukr. biokhim. zhur, 22, No. 3, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 1958² Unclassified.

LOZOVSKIY, D.V.

Tryptophan metabolism in patients with schizophrenia. Vop. med.
khim. 8 no.6:616-620 N-D '62. (MIRA 17:5)

1. Institut psikhatrii AMN SSSR.

LOZOVSKIY, I. M.

Effect of mild hydrogenation on the coking power of Moscow basin coal. L. L. Nesternko and I. M. Lozovskiy. *Ukrain. Khim. Zhur.* 10, 88-92 (1935) (in Russian).

Hydrogenation was carried out in a rotary autoclave at 250-400° and 100-200 atm. The coal contained 11.3

30.1, C 43.9 and volatile matter 27.1%. The resulting product resembled in appearance bituminous coal and had good coking properties.

S. I. Madursky

LOZOVSKIY, I. M.

USSR/Metallurgy
Coke

May 1947

"Utilization of Gas Coal for Making Coke," P. A. Sud'ya and I. M. Lozovskiy (MMK and VUKHIN)
3 pp

"Stal'" Vol VII, No 5

Introduction of 15 per cent of gas coal in the first block of furnaces at the Magnitogorsk Metallurgical Factory did not lower the quality of the coke. Increase up to 35 percent of gas coal gave coke with noticeable lowering of mechanical stability.

PA 18T36

LOZOVSKIY, I. V.

Lozovskiy, I. V. - "Amidostomatosis of geese and experience in the struggle against it in the kolkhozes and sovkhoses of Belorussia", (Thesis of a candidate's dissertation), Trudy Gel'mintol. laboratorii (Akad. nauk SSSR), Vol. 11, 1949, p. 231-33.

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1949).

KOSAREV, O., shturman; GVIL'DIS, B., bortmekhanik (Irkutsk); KORNEV;
LOZOVSKIY; KUZ'MIN, starshiy inzhener-ekonomist; MESILOV, Yu.,
aviatskhnik; FROLENKO, N. (Novosibirsk); KHALIULLIN, R.
(Verkhniye Kigi, Bashkirskoy ASSR); ZOSIMOV, V. (g. Klintsy,
Bryanskoy oblasti)

Public inspection is in action. Grazhd. av. 20 no.6:28
Je '63. (MIRA 16:8)

1. Obshchestvennyy inspektor po bezopasnosti poletov,
Novosibirsk (for Kosarev).
(Aeronautics, Commercial)

LOZOVSKIY, L., insh. (Leningrad)

Increasing the capacity of drying cylinders. Prom. koop. 13 no.7:11
Jl '59. (MIRA 12:10)

(Drying apparatus--Textile fabrics)

Содержание В. А.
LOZOVSKIY, L. Kh., inzh.; MARALIN, G. A., inzh.; MARINSKIY, S. F., inzh.;
SIROTKIN, Ye. A., inzh.

Efficient method of unloading fuel and transport facilities for
use with dump cars in electric power plants. Elek. sta. 28
no. 10:10-12 '57. (MIRA 10:11)
(Electric power plants). (Fuel--Transportation)

LOZOVSKIY, M.

Moving-Picture Projection

Protect the surface of the film. Klub no. 4 1952

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

IVANOV, Yu.G., inzh.; LOZOVSKIY, L.A., inzh.

Investigation of bugs by the radio compounding and direction
finding method. Transp. stroi. 15 no.11:38-39 II '65.
(MIRA 18:11)

LOZOVSKIY, M.M.

Paleozoic natural gases in the southern Minusinsk Lowland and
Kuznetsk and Karaganda Basins. Avtoref. nauch. trud. VNIIGRI no.17:
68-71 '56. (MIRA 11:6)
(Siberia--Gas, Natural--Geology)

10

LEZOVSKIY, M. R.

ca

Preparation of acetaldehyde and acetic acid from natural gases. M. R. Lezovskii and S. M. Mendeleva. *Natural Gases* U. S. S. R. No. 8, 60-71(1934).--AcH and AcOH wt. results. Higher temp. and more catalyst increase the degree of polymerization. H. M. Leicester

COMMON ELEMENTS

COMMON VARIABLE ELEMENTS

ASAC-55A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

5TH ORDER

6TH ORDER

7TH ORDER

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LOZOVSKIY, M.R.

Solubility of the natural gases in natural waters. VNIGRI no.105:
78-106 '57. (MIRA 11:9)
(Mineral waters) (Gas, Natural) (Solubility)

TORGOVANOVA, V.B.; DUBROVA, N.V.; KRUGLIKOV, N.M.; LOZOVSKIY, M.R.; POMARNATSKIY, M.A.; KROTOVA, V.A.; nauchnyy red.; DOLMATOV, P.S., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Paleozoic and Mesozoic waters and gases in Western Siberia]
Vody i gazy paleozoiskikh i mesozoiskikh otlozhenii Zapadnoi Sibiri. Leningrad, Gos.nauchn.-tekhn.izd-vo nef. i gorno-topl. lit-ry leningr. otd-nie, 1960. 459p. (Leningrad, Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi institut. Trudy, no. 159) (MIRA 14:3)

(Siberia, Western--Water, Underground)

(Siberia, Western--Gas, Natural)

LOZOVSKIY, M.R.; ROZEN, B.Ya.

Universal formula for the calculation of the solubility of gases
in mineral waters. Inform. sbor. NIIGA no.30:62-66 '62.
(MIRA 17:1)

NOVIK, Grigoriy Borisovich, inzh.; LOZOVSKIY, Naum Abramovich;
ROVENSKIY, Mikhail Lavrent'yevich; DENISENKO, L.P.,
red.izd-va; STARODUB, T.A., tekhn. red.

[Design of women's outerwear; factory production methods]
Proektirovanie verkhnei zhenskoi odezhdy; fabrichnoe pro-
izvodstvo. Kiev, Gostekhzdat USSR, 1963. 245 p.
(MIRA 17:2)

LOZOVSKIY, M.V.

Economic indices for the distribution of interurban haulage
between automotive and railroad transportation. Trudy MIRE no.20:
70-82 '63. (MIRA 17:3)

S/194/61/000/012/079/097
D273/D301

AUTHORS: Lozovskiy, N. S. and Potapenko, A. Ye.

TITLE: On the question of ultrasonic inspection in the formation of an ice-bed cylinder

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1961, 22, abstract 12E120 (Tr. Ukr. n.-i. in-ta organiz. i mekhaniz. shakhtn. str-va. 1960, no. 11, 246-261)

TEXT: Present methods of control are considered as well as their shortcomings, and a description is given of an investigation relating to the invention of an ultrasonic apparatus for measuring ice-bed walls at great depths. The velocity of sound in thawed and frozen strata was measured by the duration of elastic pulses between frozen columns and hydro-observation slots. The conditions of propagation of ultrasonic energy through various layers and strata have been examined. It is noticed that to control freezing one can use either an echo-method or a sound propagation method.

Card 1/2

On the question of ...

S/194/61/000/012/079/097
D273/D301

It is shown possible to measure distorted slots by an ultrasonic method. The working frequency panel is built on the basis of a compromise between the need to obtain an unvarying pencil beam and an increased damping of the ultrasound in the layer as the frequency increases. Damping values are given for elastic oscillations in the range 0.2 - 40 Kc/s for runs with 26% water. It is noticed that frozen runs follow soundings at frequencies not higher than 100 kc/s and that to detect thawed runs frequencies of 2 - 5 Kc/s are to be used. In view of the necessary work at low temperatures a barium titanate vibrator was used with 12% strontium titanate added which is stable at temperatures from +30 to -20°C. To inspect the perimeter of the ice-bed cylinder, 6 converters were used working as receiver-transmitters switched by a step locator. Measurements are noted, undertaken to prevent internal pipe obstructions which make measurements difficult. 6 figures. 3 references. / At stractor's note: Complete translation. /

Card 2/2

Lozovskiy, N. S.
Category: USSR/Magnetism - Experimental methods of magnetism

F-2

Abs Jour: Ref Zhur - Fizika, No 1, 1957 No 1389

Author : Korsunskiy, M. I., Fogel', Ya. M., Bykova, G. A., Livshits, L. I.,
Lozovskiy, N. S., Chovnik, A. A.

Title : Investigation of the Topography of the Inhomogeneous Plane Magnetic
Field of a Six-Pole Electromagnet.

Orig Pub: Zh. tekhn. fiziki, 1956, 26 No 2, 1222-232

Abstract: A procedure is described for the investigation of the topography of an inhomogeneous plane magnetic field of a six-pole electromagnet, used to focus particles that have a magnetic moment. The cited measurement results show that the above field can be produced without substantial distortion in a circle 10 cm in radius.

Card : 1/1

ACCESSION NR: AP4020571

S/0057/64/034/003/0448/0453

AUTHOR: Berezin, Yu.A.; Gutkin, T.I.; Lozovskiy, S.N.; Soldatenkov, T.R.

TITLE: Interaction of a plasma with high frequency fields in the presence of a constant uniform magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.3, 1964, 448-453

TOPIC TAGS: plasma, plasma in alternating field, extraordinary wave, plasma in microwave field, skin effect

ABSTRACT: The interaction of an axially symmetric plasma in a uniform longitudinal magnetic field with an axially symmetric high frequency electromagnetic field is discussed theoretically. The high frequency field is assumed to consist of a longitudinal magnetic field and a transverse electric field (extraordinary wave). The case of a longitudinal high frequency electric field and an azimuthal magnetic field has been previously discussed by others (H.A.Boot, S.A.Self and R.B.R.Sherby-Harvie, J.Elec.Contr., 5, 435, 1958; E.S.Weibel, Ibid. 5, 435, 1958). The motion of the ions and electrons is separated into a rapid component having the frequency of the applied alternating field and the slow component that remains after averaging over a period

Card 1/3

ACC.NR: AP4020571

of the alternating field. The system is described by the two-fluid hydrodynamic equations and Maxwell's equations. Longitudinal and transverse temperatures and pressures are distinguished. In the "zeroth approximation", quasineutrality is assumed and the non-linear hydrodynamic terms, the pressure gradients, and the Lorentz forces due to the magnetic component of the variable field are neglected. To these zeroth approximation equations is adjoined the sum of the "first approximation" equations of motion averaged over a period of the high frequency field. From the resulting equations the particle velocities and two of the three components of the alternating field are eliminated. Two differential equations are thus obtained for the plasma density and the azimuthal electric field as functions of the distance from the symmetry axis. These equations were integrated numerically for several values of the parameters, and some of the results are presented graphically. There are two resonant frequencies. For sufficiently dense plasmas these frequencies are approximately the Langmuir frequency and the geometric mean of the ion and electron Larmor frequencies. When the frequency of the applied field is larger than the mean Larmor frequency, the plasma density increases and the alternating field decreases with approach to the symmetry axis. The mathematical simplification that results when the skin penetration depth is small compared with the radius of the plasma filament is discussed briefly. When the applied frequency is smaller than the mean Larmor

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ACC.NR. AP4020571

frequency, the extraordinary wave penetrates the plasma. In this case the azimuthal electric field amplitude is an oscillatory function of distance from the axis, and the plasma density increases, with superposed oscillations, as the distance from the axis is increased. The criterion for the validity of the approximations employed is that the electron velocity be small compared with the product of the frequency of the applied field and a characteristic length which may be either the skin penetration depth or the wavelength. "In conclusion the authors express their gratitude to R.A.Demirkhanov for his interest in the work and for discussions." Orig.art.has: 20 formulas and 4 figures.

ASSOCIATION: none

SUBMITTED: 31Jan63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: PH

NR REF SOV: 003

OTHER: 002

Card^{3/3}

L 27596-65 EWT(1)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EWA(m)-2 pz-6/po-4/pab-10/pi-4
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ACCESSION NR: AP5003234

S/0057/65/035/001/0043/0046 66
 43B

AUTHOR: Demirkhanov, R.A. / Kossay, I.A. / Leont'yev, N.I. / Lozovskiy, S.N. / Udovichenko, Yu.K. / Filatova, T.M.

TITLE: Interaction of a traveling electromagnetic wave with a plasma 21

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no.1, 1965, 43-46

TOPIC TAGS: plasma, plasma confinement, plasma heating, plasma wave absorption, traveling wave

ABSTRACT: An experimental investigation was undertaken to test the possibility of confining a plasma by means of a traveling electromagnetic wave as proposed by S.M. Osovets (Fizika plazmy i problemy upravlyayemykh termoyadernykh reaktsiy [Plasma physics and problems of controlled thermonuclear reactions] Vol.4, p.3, Izd. AN SSSR, 1958). A toroidal pulsed machine was employed, similar to that described elsewhere by R.A. Demirkhanov et al. (ZhTF 32 248, 1962). Hydrogen plasma was investigated at a pressure of 0.06 mm Hg. One megacycle/sec traveling waves were produced with a delay line terminated in its surge impedance. The phase velocity was 5.6×10^7 cm/sec

Card 1/3

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ACCESSION NR: AP5003234

2
and the maximum amplitude of the magnetic field was 230 Oe. The electron density and temperature and the longitudinal component of the high frequency magnetic field were measured at various distances from the axis to the discharge tube by means of probes. The electron temperature was approximately constant at 60 000 °K and the electron density was of the order of 10^{14} cm⁻³. From the measured data the gradients of the plasma pressure and the magnetic pressure were calculated. The plasma pressure gradient everywhere exceeded the magnetic; confinement of the plasma was accordingly not achieved. Some calculations are presented concerning the behavior of a plasma in a high frequency magnetic field. To achieve confinement it is not sufficient simply to increase the magnetic field strength, for the high frequency field tends to heat the plasma. It is concluded that confinement can be achieved only in an incompletely ionized plasma with a large electron density, in which energy can be transferred from the electrons to the walls of the chamber via the ions and the neutral particle. "The authors express their gratitude to S.V.Kuril'nikov and N.V.Aleksandrov for constructing the power supply for the high-frequency discharge." Orig.art.has: 13 formulas and 2 figures.

Card 2/3

L 27596-65

ACCESSION NR: AP5003234

ASSOCIATION: none

SUBMITTED: 16Feb64

ENCL: 00

SUB CODE: ME

NR REF SOV: 006

OTHER: 001

Card 3/3

LOZOVSKIY, V., traktorist

Replacement of a connecting link. Sel'.mekh. no.3:31 '62.

(MIRA 15:3)

1. Kolkhoz imeni Pushkina, Toguchinskiy rayon, Novosibirskaya oblast'.

(Tractors--Repairing)

POTAPOV, L.N.; MIKHAYLOV, V.P.; SEL'YANKIN, I.T.; LOZOVSKIY, V.I.

Using professor Chinkel's shield in Baley Metallurgical Combine
mines. Biul. TSIN tsvet. met. no. 21:2-6 '57. (MIRA 11:7)
(Baley--Mining engineering)

VOL'FSON, F.I.; LUKIN, L.I.; DYUKOV, A.I.; KUSHNAREV, I.P.; PEK, A.V.;
 RYBALOV, B.L.; SONTUSHKIN, Ye.P.; KHOROSHILOV, L.V.; CHERNYSHEV,
 V.F.; BIRYUKOV, V.I.; GARMASH, A.A.; DRUZHININ, A.V.; KARAMYAN,
 K.A.; KUZNETSOV, K.F.; LOZOVSKIY, V.I.; MALINOVSKIY, Ye.P.;
 NEVSKIY, V.A.; PAVLOV, N.V.; RONENSON, B.M.; SAMONOV, I.Z.;
 SIDORENKO, A.V. [deceased]; SOPKO, P.P.; CHEGLOKOV, S.V.; YUDIN,
 B.A.; KREYTER, V.M., doktor geologo-mineral.nauk; retsenzent;
 KOTLYAR, V.N., doktor geologo-mineral.nauk, retsenzent; GRUSHEVOY,
 V.G.; doktor geologo-mineral.nauk, retsenzent; NAKOVNIK, N.I., doktor
 geologo-mineral.nauk, retsenzent; KUREK, N.N., doktor geologo-mineral.
 nauk, retsenzent; LIOGEN'KIY, S.N., retsenzent; SHATALOV, Ye.T., doktor
 geologo-mineral.nauk, red.; KRISTAL'NIY, B.V., red.; SERGEYEVA, N.A.,
 red.izd-va; GUROVA, O.A., tekhn.red.

[Basic problems and methods of studying structures of ore provinces
 (Continued on next card)]

VOL'FSON, F.I.---(continued) Card 2.

and deposits] Osnovnye voprosy i metody izucheniia struktur rudnykh polei i mestorozhdenii. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane neдр, 1960. 623 p.

(MIRA 13:11)

1. Akademiya nauk SSSR. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii. 2. Moskovskiy institut tsvetnykh metallov i zolota (for Dyukov, Biryukov, Druzhinin, Kuznetsov). 3. Institut mineralogii, geokhimii i kristalloghimii redkikh elementov AN SSSR (for Garmash). 4. Akademiya nauk Armyanskoy SSR (for Karamyan). 5. Baleyzoloto (for Sidorenko). 6. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR (for Malinovskiy, Nevskiy, Pavlov, Chernyshev). 7. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze (for Ronenson). 8. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya (for Samonov). 9. Voronezhskiy universitet (for Sopko). 10. Kol'skiy filial AN SSSR (for Yudin).

(Ore deposits)

LOZOVSKIY, V. K.

"Roentgenological Data in Slight Traumatic Injuries of the Bones Forming the Ankle. (Experimental Investigation.)" Cand Med Sci, Leningrad State Order of Lenin Inst for the Advanced Training of Physicians imeni S. M. Kirov, Leningrad, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

KEYLIN, G. S.; LOZOVSKIY, V. L.

Metals - Testing

New method of metal defectoscopy. Med. prom. no. 5., 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

YANOVSKIY, M.A.; KBYLIN, G.S.; LOZOVSKIY, V.L.

Anticorrosive flux for soldering with soft solders. Med.prom. no.3:
38-39 J1-S '55. (MLRA 9:12)

1. Mediko-instrumental'nyy ordena Lenina zavod "Krasnogvardeysk."
(APPARATUS AND INSTRUMENTS,
anticorrosive soldering)

LOZOVSKIY, V.L.

137-58-5-9777

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 131 (USSR)

AUTHORS: Keylin, G.S., Lozovskiy, V.L.

TITLE: Cutting Tools Made by Electric Arc Surfacing (Izgotovleniye rezhushchego instrumenta metodom elektodugovoy naplavki)

PERIODICAL: Materialy po obmeny opytom i nauchn. dostizh. v med. prom-sti, 1957, Nr 2 (21), pp 74-80

ABSTRACT: Electric arc surfacing (S) of R-18 and R-9 steels on Nr 45 carbon-steel blocks as introduced at the Krasnogvardeyets Medical Instruments Plant to save high-speed steel is described. Electrodes with tips of R-18 or R-9 high-speed steel, 3-6 mm in diam and with UONII-13/45 coating, with 2.5% graphite added, are used. D-C is used for the S. After roughing and finishing, the surfaced cutters are three times tempered at 560-570°C for one hour each time without prior annealing and quenching. S is recommended in place of brazing on plates of high-speed steel. Also described is S of stainless 2Kh13 and 3Kh13 steels on the cutting edge of trimming dies, another procedure introduced at this plant. Before S, the punch or die is heated to 300-350°.

Card 1/1

1. Cutting tools--Production 2. Arc welding--Applications V. K.

137-58-4-7616

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 179 (USSR)

AUTHORS: Keylin, G. S. , Lozovskiy, V. L.

TITLE: Protecting Files from Decarburization on Hardening (Predokhraneniye napil'nikov ot obezuglerozhivaniya pri zakalke)

PERIODICAL: Materialy po obmenu opytom i nauchn. dostizh. v med. prom-sti, 1957, Nr 4, (23), pp 111

ABSTRACT: To protect the teeth of files (F) from decarburization on heating for hardening it is recommended that, instead of the expensive coating previously employed, a new and cheaper coating consisting of 100 mesh emery dust mixed with liquid joiner's glue be used. The F are wetted with the joiner's glue and are covered with a layer of emery dust to a thickness of 1-1.5 mm, and are then placed on edge in a fixture, charged into the furnace (handle toward the door), and held for 15 minutes at 780-800°C, whereupon each individual F is cooled separately in a 10-percent NaCl solution. After hardening, the F are washed in 10-15 percent soda solution and dried at 100-120°. R_C after hardening is 61-64.

A. B.

Card 1/1 1. Files--Heat treatment

SOV/137-58-9-19996

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 272 (USSR)

AUTHORS: Sitnikova, T.A., Keylin, G.S., Lozovskiy, V.L.

TITLE: Effect of Heat Treatment on the Properties of 2Kh13 Stainless Steel (Vliyaniye termicheskoy obrabotki na svoystva nerzhavayushchey stali 2Kh13)

PERIODICAL: Materialy po obmenu opytom i nauchn. dostizh. v med. prom-sti, 1957, Nr 6 (25), pp 110-112

ABSTRACT: Ref. RZhMet, 1958, Nr 6, abstract 13443

1. Stainless steel--Properties
2. Stainless steel--Heat treatment
3. Heat--Metallurgical effects

Card 1/1

LOZOVSKIY, V.L.
SITNIKOVA, T.A.; KEYLIN, G.S.; LOZOVSKIY, V.L.

Effect of heat treatment on the properties of 2Kh13 stainless steel.
Med.prom. 11 no.9:25-29 S '57. (MIRA 10:12)

1. Mediko-instrumental'nyy ordena Lenina zavod "Krasnogvardeyets"
(STEEL, STAINLESS--HEAT TREATMENT)

LOZOVSKIY, V.L.

Restoration of lathe centers. Med.prom. 13 no.9:54 S '59.

(MIRA 13:1)

1. Mediko-instrumental'nyy zavod "Krasnogvardeyets."
(LATHES)

LOZOVSKIY, V.L., kand.tekhn.nauk

Designing and preparing optical systems for lighthouses.
Svetotekhnika 6 no.3:11-16 Mr '60. (MIRA 13:6)
(Lighthouses--Lighting)

SITNIKOVA, T.A.; KEYLIN, G.S.; LOZOVSKIY, V.L.

Manufacture of tools by the weld seam method using I-2 electrodes.
Med.prom. 14 no.2:31-33 P '60. (MIRA 13:5)

1. Mediko-instrumental'nyy zavod "Krasnogvardeyets".
(TOOLS)

SITNIKOVA, T.A.; LOZOVSKIY, V.L.

Manufacture of instruments from EL-603 steel. Med. prom. 14 no.9:
54 S '60. (MIRA 13:9)

1. Mediko-instrumental'nyy zavod "Krasnogvardeyets".
(MEDICAL INSTRUMENTS AND APPARATUS)

LOZOVSKIY, V.L.; NAUMOV, G.D.

High-frequency soldering of spatulas with MF-3 solder. Med.prom.
15 no.1:55-56 Ja '61. (MIRA 14:1)

1. Leningradskiy ordena Lenina mediko-instrumental'nyy zavod
"Krasnogvardeyets."
(SPATULA) (SOLDER AND SOLDERING)

SITNIKOVA, T.A.; KEYLIN, G.S.; LOZOVSKIY, V.L.

Raising the quality of springs for medical instruments. Med. prom.
16 no.3:48-50 Mr '62. (MIRA 15:5)

1. Mediko-instrumental'nyy zavod "Krasnogvardeyets".
(MEDICAL INSTRUMENTS AND APPARATUS)

KEYLIN, Grigoriy Samuilovich; LOZOVSKIY, Vladimir Ilyovich; SITNIKOVA,
Tamara Aleksandrovna; ~~Mikhailov, Mikhail~~EV, P.B., red.;
TELYASHOV, R.Kh., red.izd-va; GVIRTS, V.L., tekhn. red.

[Effect of heat treatment of the properties of chromium stain-
less steels; from practices at the "Krasnogvardeets" Plant]
Vliianie termicheskoi obrabotki na svoistva khromistykh nerzha-
veishchikh stalei; opyt zavoda "Krasnogvardeets." Leningrad,
1963. 17 p. (Leningradskii dom nauchno-tekhnicheskoi propa-
gandy. Seriya: Metallovedenie i termicheskaya obrabotka, no.1)
(MIRA 16:8)

(Steel, Stainless--Heat treatment)

LOZOVSKIY, V.M., kontr-admiral, Geroy Sovetskogo Soyuza

Protection and correct use of weapons and combat equipment.
Mor.sbor. 46 no.5:61-66 My '63. (MIRA 16:4)
(Russia--Navy--Firearms)

LOZOVSKIY, V.N.

✓ Methods of magnetic analysis of ferromagnetic components in rocks V.N. Lozovskiy, *Nauka Press*, 1985, 23 p. (1985). A discussion of the following three uses of magnetic methods of analysis: (1) detn. of content of magnetic component in rocks contg. no other ferromagnetic components; (2) detn. of magnetic component in rocks contg. several ferromagnetic components; and (3) detn. of nonmagnetic component. Gladys S. Macy

3

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LOZOVSKIY, V.N.; LOZOVSKAYA, R.A.

Dielectric relaxation of weakly bound ions in solid dielectrics.
Izv. vys. ucheb. zav.; fiz. no.1:7-14 '58.

(MIRA 11:6)

1. Novocherkasskiy politekhnicheskii institut im. S. Ordzhonikidze.
(Dielectrics)

48-22-3-3/30

AUTHOR: Lozovskiy, V. B.

TITLE: Thermal Ionic Polarization and Slow Processes in Solid Dielectrics (Teplovaya ionnaya polyarizatsiya i medlennyye protsessy v tverdykh dielektrikakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR Seriya Fizicheskaya, 1958, Vol. 22, Nr 3, pp. 263-267 (USSR)

ABSTRACT: In the present paper the author investigated a dielectric model which contained defects with a random number of potential wells. It was assumed that the "defective" places (e.g. the areas with reduced potential barriers for the conduction ions) have the form of cubes, the edges of which are orientated along the field and which contain m^3 congruent potential wells. Assuming also that a) acts on the weakly bound ions of the medium macroscopic field E which does not change according to time; b) the "defective" places are surrounded by high potential barriers which make the diffusion of the ions beyond the limits of the "defect" difficult. c) the number of weakly bound ions (n_1) in comparison with the number of wells (m^2) in every layer of potential wells is small; d) the elementary admissible

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Thermal Ionic Polarization and Slow Processes in
Solid Dielectrics

48-22-3-9/30

act of ion-displacement within the "defect" is the jump of the ion over a potential barrier. Complying with all these conditions, the process of redistribution of the ions in the "defects" under the action of the suddenly applied field is described with a system of lineary. homogenous differential equations with constant coefficients. It can be shown that a) all roots of the characteristic system-equation (1) are real and different; b) a root (λ_1) at random values of m is equal to zero; c) the remaining roots are negative; d) with $m \rightarrow \infty$ the greatest of the negative roots is $\lambda_2 \rightarrow 0$ and the smallest is $\lambda_m \rightarrow -4\delta$ (figure 1). The process of redistribution of the charges in "defects" of the dielectric appears macroscopically in form of the absorption current electromotive force of high voltage polarization and the relaxation losses. The physical sense of the temperature- and gradient dependence of the electromotive force of high voltage polarization consists in the fact that the asymmetry of distribution of the charges increases within the "defects" according to the voltage-increase and that P increases accordingly. P decreases according to the increase of E in very intense field. The rise of temperature disturbs the asymmetry

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Thermal Ionic Polarization and Slow Processes in
Solid Dielectrics

48-22-3-9/30

of distribution of the ions in the "defect" and intensifies its diffusion beyond its limits, which leads to a decrease of P . The number of potential wells does not depend on temperature. The amount of the absorption current decreases according to the increase in temperature which corresponds to a certain moment at the expense of a rapid shortening of the relaxation period as well as at the expense of the more intense diffusion of the weakly bound ions beyond the limits of the "defect". In weak fields the absorption current increases according to the voltage increase and in strong fields it declines after exceeding the maximum. The value E_m which corresponds to the maximum of the absorption current is equal to $E_m \sim 10^5 \div 10^6 \text{ V cm}^{-1}$. There are 3 figures and 5 references; all of which are Soviet.

AVAILABLE: Library of Congress

1. Dielectrics--Polarization 2. Dielectrics--Properties

Card 3/3

S/181/60/002/010/031/051
B104/B205

AUTHOR:

Lozovskiy, V. N.

TITLE:

Distribution of relaxation times in thermal ion polarization

PERIODICAL:

Fizika tverdogo tela, v. 2, no. 10, 1960, 2540 - 2543

TEXT: Thermal ion polarization has been studied for the case where the localization centers of weakly bound ions may have any number of potential wells of the same type. The differential equations

(3)

describing the redistribution of weakly bound ions after an external field has suddenly been switched off is formulated on the following assumptions:

- 1) The electric field has the same structure in all localization centers;
- 2) the potential barriers do not vary; 3) there exists no correlation of

Card 1/5

S/181/60/002/010/031/051
B104/B205

Distribution of relaxation...

the motions of weakly bound ions. In these differential equations, n_j denotes the number of weakly bound ions in the potential well of j -th kind; $\delta = \frac{\nu}{3} \exp(-U/kT)$; t is the time; and ν is the oscillation frequency of weakly bound ions. The solution of Eqs. (3) is

(4)

where $j = 1, 2, 3, \dots, m$, and

(5)

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Distribution of relaxation...

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B104/B205

Therefrom, the dipole moment per unit volume of the dielectric for the process in question can be expressed by

(6)

It is found that $r = m/2$ with even m , and $r = (m-1)/2$ with odd m . Finally, the expression

$$\alpha_i = \frac{a^2 q^2}{4m^2 kT} \frac{\tan \frac{2\pi i}{2m}}{\cos \frac{2\pi i}{2m}} \{1 - (-1)^{m+i}\} \quad (i = 1, 2, \dots, m-1) \quad (7)$$

is obtained for the polarizability. From Eqs. (5) and (7) it follows that, with a given m , the relaxation time τ_i and the corresponding polarizability α_i will increase with an increase of subscript i . Therefore, the relaxation

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S/181/60/002/010/031/C51
B104/B205

Distribution of relaxation...

time increases with increasing polarizability. Furthermore, the spectrum of dielectrically active relaxation times is widened with increasing m . It is shown that the greatest relaxation time τ_{m-1} is the principal factor in the spectrum of dielectrically active relaxation times. This relaxation time determines the position of the frequency or temperature peaks of losses. For great values of m one finds

$$\tau_{m-1} = \frac{3m^2}{\pi^2 \nu} \exp(U/kT),$$

for small values of m , however,

$$\tau_{m-1} = 0.3 \frac{m^{2i} + 1}{\nu} \exp(U/kT)$$

is valid with a small error. The activation energy, U , is calculated from the temperature-dependent shift of the frequency peak of losses. If the values of U , τ and ν are known, it will be possible to estimate the number, m , of potential wells in the localization centers of the ions. The results

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Distribution of relaxation...

S/131/60/002/010/031/051
B104/B205

indicate that experimental data can be exactly analyzed only if the influence exerted by the number of potential wells in the localization centers upon the thermal polarization of ions is taken into account. Professor G. I. Skanavi is thanked for a discussion and for his interest in the work. There are 2 figures and 8 references: 3 Soviet-bloc and 5 non-Soviet-bloc. The 3 most important references to English-language publications read as follows: J. D. Hoffman. J. Chem. Phys., 23, 1131, 1955; J. D. Hoffman, B. M. Axilrod. J. Research NBS, 54, 357, 1955; B. M. Axilrod. J. Research NBS, 56, 81, 1956.

ASSOCIATION: Novocherkasskiy politekhnicheskii in-t imeni S. Ordzhonikidze
(Novocherkassk Polytechnic Institute imeni S. Ordzhonikidze)

SUBMITTED: December 7, 1959

Card 5/5

S/020/60/133/005/016/019
B004/B060

AUTHORS: Garkunov, D. N., Lozovskiy, V. N., Polyakov, A. A.

TITLE: On the Mechanism of Reciprocal Atomic Transfer of Copper in the Friction of Bronze on Steel

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 5, pp. 1128 - 1129

TEXT: In a previous paper (Ref. 1) the authors studied the friction of BrOCH- (BrOSN-) and $\text{BrO}\phi$ (BrOF) bronze on steel with lubrication by a glycerin-alcohol mixture or pure glycerin. A thin, copper-enriched bronze layer then formed on the steel surface, whose particles were then again transferred onto the bronze, and from there again onto the steel, without any wear. The authors define this phenomenon as "atomic adhesion". The present paper offers an explanation for it. The total area of contact is considerably smaller than the nominal contact area. A considerable amount of heat develops in the contact points, while the copper of the oxide layer is reduced by glycerin mainly in such points as exhibit a high copper content. These points of the bronze adhere to the steel.

Card 1/3

On the Mechanism of Reciprocal Atomic
Transfer of Copper in the Friction of
Bronze on Steel

S/020/60/133/005/016/019
B004/B060

The bronze sections that are not copper-enriched are worn out and washed away by glycerin. The steel surface is covered by a layer of almost pure copper. On further friction there occurs a transfer of copper from steel to bronze. The selectivity of this process was proved by the following experiments: 1) Two steel samples were rubbed onto each other on a machine of the type "MM" ("MI") under a pressure of 30 kg/cm² and a gliding speed of 0.4 m/sec. Glycerin, in which black CuO was suspended, served as lubricant. After 20-30 min the steel samples exhibited a touch of copper. 2) A steel rod was clamped in a lathe. The purity of its surface corresponded to class 11 of ГОСТ 2789-52 (GOST 2789-52). After moistening with glycerin a BrOF bronze sample was pressed at 100 kg/cm² onto the steel rod rotating at 40 rpm (Fig. 1). In the first variant of this experiment the bronze sample was given a feed so that it touched every point of the steel bar only once. In this case the steel rod did not show any traces of copper. In the second variant, the bronze sample remained pressed onto a point of the steel rod. After 100 revs both the steel rod and the bronze sample were covered with copper. When using other lubricants (kerosene, mineral oils, distilled water) this effect

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On the Mechanism of Reciprocal Atomic
Transfer of Copper in the Friction of
Bronze on Steel

S/020/60/133/005/016/019
B004/B060

was not observed, which might be exploited for a new method of working
on friction surfaces (Authors' Patent No. 115744). There are 1 figure
and 2 Soviet references.

PRESENTED: March 30, 1960, by P. A. Rebinder, Academician

SUBMITTED: March 24, 1960

Card 3/3

LOZOVSKIY, V. N.

Cand Tech Sci - (diss) "Frictional brass plating as a method of increasing the antifriction properties of steel parts using aviation techniques." Kiev, 1961. 20 pp; (Main Board of Civil Air Fleet); 180 copies; free; (KL, 7-61 sup, 240)

LOZOVSKIY, V. N.

Cand Phys-Math Sci, Diss -- "On the problem of ionic relaxation polarization in solid dielectrics". Rostov on Don, 1961. 13 pp, 22 cm (Min of Higher and Inter Spec Educ RSFSR. Rostov on Don State U. Phys-Math Faculty), 200 copies, Not for sale (KL, No 7, 1961, p 175, No 24254). [61-52370]

S/123/62/000/017/006/006
A052/A101

AUTHORS: Garkunov, D. I.; ~~Lozovskiy, V. N.~~

TITLE: The effect of frictional bronze and brass plating on the surface finish

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 17, 1962, 33 - 34, abstract 17B203 (In collection: "Kachestvo poverkhnosti detaley mashin". Moscow, AN SSSR, no. 5, 1961, 386 - 391)

TEXT: The principal methods of utilizing the effect of metal transfer in the process of friction for improving the running-in quality and raising the antiscoring properties and wear resistance of friction surfaces of machine elements are briefly discussed. A frictional method of imparting antiscoring properties to the surface of steel elements of friction couples by a preliminary application of a thin brass or tin bronze layer is described. Frictional brassing and bronzing of piston bolts, cylinders and other parts can be performed by means of the simplest appliances on an ordinary lathe. A schematic drawing of an appliance is given, the mode of operation of which consists in utilizing the effect

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Card 1/2

The effect of frictional bronze and...

S/123/62/000/017/006/006
A052/A101

of metal transfer in the process of sliding friction of a copper alloy rod against a steel surface. The frictional treatment is carried out at a sliding speed of 0.2 m/sec., specific pressure of $10 \pm 1 \text{ kg/mm}^2$ and a longitudinal feed of the copper alloy rod of 0.1 - 0.2 mm per revolution of the steel part. The results of investigations of the effect of brassing on antifriction properties and scoring resistance at sliding friction of steel elements are cited. It is shown that brassing improves the running-in quality and in particular the antiscoring properties of elements of little-moving connections working at low sliding speeds. Also the results are given of investigations of the effect of frictional brassing on the fatigue strength and the surface finish of samples of 30 XГCA (30KhGSA) steel heat-treated to the hardness of HRC 32-36 and 40-42. It is established that the samples brass-plated by the frictional method have at 10×10^6 cycle testing a fatigue limit equal to that of unplated samples and the surface finish is equal to the initial one. It is pointed out that frictional copper and bronze plating is worth applying to precision couple elements only and also as a sublayer for a subsequent depositing of electrolytic copper platings from acid baths without using cyanogen electrolytes.

[Abstracter's note: Complete translation]

Card 2/2

GARKUNOV, D.N.; LOZOVSKIY, V.N.

Effect of friction bronzing and brass plating on surface
quality. Trudy Sem.po kach.poverkh. no.5:386-391 '61.

(MIRA 15:10)

(Brass plating)

(Bronzing)

MITIN, B.A.; PASHIN, Yu.D.; KOLEVATOV, V.N.; LOZOVSKIY, V.N.

Exchange of experience. Zav.lab. 28 no.10:1259-1261 '62.
(MIRA 15:10)

1. Chelyabinskiy politekhnicheskiy institut(for Mitin).
2. Saratovskiy institut mekhanizatsii sel'skogo khozyaystva imeni Kalinina(for Pashin).
3. Ural'skiy filial AN SSSR(for KolevatoV).
(Testing machines)

1-206-65 INT(R)/T/INT(D)/INT(A)/INT(W)/INT(T) INT(C) JD

ACCESSION NR: AR5017546

UR/0058/65/000/006/EO66/EO66

SOURCE: Ref. zh. Fizika, Abs. 6P519

AUTHORS: Lozevskiy, V. N.; Politova, N. F.; Gershanov, V. Yu.

TITLE: Effect of the work function of the metal on the rectifying properties of a metal-silicon contact

CITED SOURCE: Uch. zap Kabardino-Balkarsk. un-t. Ser. fiz.-matem. n., vyp. 19, 1963, 329-334

TOPIC TAGS: work function, rectifier action, contact potential difference, barrier rectification, leakage current

TRANSLATION: An investigation was made of the dependence of the height of the barrier on the contact potential difference under conditions which exclude the influence of the surface leakage current. An investigation of the inverse branch of the voltage-current characteristic of Ca, Mg, Cr, Cu, and Pt contacts sputtered on Si (resistivity 10-12 ohm-cm) has shown that there is a clear-cut correlation between the work function of the metal and the usual (voltage) component of the barrier current, i.e., the height of the barrier. The type of surface finish of the silicon greatly influences the magnitude of the ordinary barrier current, but

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1 59206-65

ACCESSION NR: AR5017546

under the experimental conditions the surface levels do not screen completely the effect of the contact potential difference, and its role is clearly manifest.

SUB CODE: SS

ENCL: 00

7/11/80
Card 2/2

L 59197-65

ACCESSION NR: AR5017545

UR/0058/65/000/006/E066/E066

SOURCE: Ref. zh. Fizika, Abs. 6E515

AUTHORS: Lozovskiy, V. N.; Gershanov, V. Yu.; Chumakov, I. P.

TITLE: Effect of electric formation of planar junctions by direct current pulses

CITED SOURCE: Uch. zap. Kabardino-Balkarsk. un-t. Ser. fiz.-matem. n., vyp. 19, 1963, 383-388

TOPIC TAGS: pn junction, junction formation, dc pulse, leakage current, junction defect, impurity concentration

TRANSLATION: An experimental investigation was made of the influence of dc pulses, obtained by discharging a capacitor, on the leakage currents of a p-n junction. It was observed that passage of pulses with energy 5×10^{-2} J leads to an appreciable reduction of the leakage current. With increasing pulse energy, this effect decreases, and the inverse effect is then observed. It is proposed that the leakage current is due to defects in the p-n junction and that during the course of its formation a change takes place in the properties of the defects, owing to the change in the impurity concentration in the defective sections. G. Stepanov.

SUB CODE: SS

ENCL: 00

Card ^{KC} 1/1

GARKUNOV, D.N., doktor tekhn. nauk; LOZOVSKIY, V.N., kand. tekhn. nauk

Frictional copper plating. Mashinostroitel' no.10:20 0 '65.
(MIRA 18:10)

ACCESSION NR: AR4034660

S/0196/64/000/003/B005/B005

SOURCE: Ref. zh. Elektrotekhn. i energ., Abs. 3B27

AUTHOR: Lozovskiy, V. N.

TITLE: Slow polarization processes and structure defects in single crystals of alkali-halogene salts

CITED SOURCE: Izv. Leningr. elektrotekhn. in-ta, vy*p. 51, 1963, 180

TOPIC TAGS: crystal structure defect, crystal slow polarization, alkali halogene crystal

TRANSLATION: Slow polarization processes in NaCl and KCl single crystals containing various quantities of bivalent impurity ions Ca and Cd were investigated experimentally. It was assumed that the mechanism of these processes is similar to the ion relaxation polarization. Formulas are developed for the absorption current, absorption charge, and h-v polarization emf. These formulas permit assessing the size of absorption-charge sites and their concentration by means of experimental curves of absorption charge or of polarization emf vs. the applied field strength. The results obtained permit to infer that the absorption charges are located in the mosaic microblocks. [Tomskiy politekhnich. in-t im. S. M. Kirova]

DATE ACQ: 10Apr64

SUB CODE: IC, SS

ENCL: 00

Card 1/1

L 40003-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(b)/
EWP(L) Pf-4 IJP(c) JII/GS
ACCESSION NR: AT4049818 S/0000/64/000/000/0095/0098 34
32-1

AUTHOR: Garkunov, D.N.; Iozovskiy, V.N.

TITLE: Investigation of the effect of anodizing on the antifriction properties of aluminum alloy parts 16 18 27

SOURCE: Soveshchaniye po uprochneniyu detaley mashin, 1962. Protsessy uprochneniya detaley mashin (Processes of the hardening of machine parts); doklady soveshchaniya. Moscow, Izd-vo Nauka, 1964, 95-98

TOPIC TAGS: anodizing, aluminum, aluminum alloy, aluminum alloy anodizing, aluminum alloy wear resistance, friction, duralumin

ABSTRACT: Friction parts made of aluminum alloys with thick-layer anodizing of the working surfaces are being widely used at the present time. Tests of nonanodized and anodized D16A-T duralumin together with heat-treated 30KhGSA steel and MK-22 oil lubrication showed that thick-layer anodizing lowers the coefficient of friction under 50-90 kg/cm² loads from 0.032 to 0.014. Anodizing also lowers the possibility of scoring and improves the adhesion of the coating to the base metal. Tests were made in which these properties were estimated on the 7 MT-2 friction machine with reciprocating motion and on a device for drawing testing of metals. In the 77MT-2 machine there was

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ACCESSION NR: AT4049818

friction between a fixed, 6 mm diameter shaft with a working width of 10 mm against a sample set at an angle of 60°. The sample reciprocated 770 times per minute, and each test took 30 minutes under a constant load. It was found that the "D16 anodized alloy-steel" pair worked without jamming for 23,000 turns at 60° under a load of 200 kg/cm². Under the same conditions, a "steel-steel" pair resisted a load of 60 kg/cm² and a "D16 non-coated alloy-steel" pair resisted only 15 kg/cm². Tests were also made on the drawing machine. The tests indicated that with straight friction pairs the best results are obtained with nickel coating instead of chromium. The nickel coating has lower wear resistance, but it wears out the adjoining anodized coating to a lower extent. The nickel and chromium coatings wear out the anodized coating at 12-50% of the rate of normalized steel. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 21May64

ENCL: 00

SUB CODE: MM

NO REF SOV: 001

OTHER: 000

Card 2/2

L 21.05.66 ENT(m)/T/ENP(t) DJ
ACC NR: PEGG09528 (A)

SOURCE CODE: UR/0413/66/04/00/0000/0050

INVENTOR: Garkunov, D. N.; Lozovskiy, V. N.; Shimanovskiy, V. G.

ORG: none

TITLE: Metal-coating grease. Class 23, No. 179409

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966, 50

TOPIC TAGS: lubricant, grease, antiseize additive, antiwear additive, lubricant additive, ~~TsIATIM-201, TsIATIM-203~~

ABSTRACT: An Author Certificate has been issued for a metal-coating grease, such as TsIATIM-201 or -203, whose antiseizure (EP) and antiwear properties are improved and to which metal-coating properties are imparted by the addition of 5 to 60% anti-friction metals such as lead, tin, copper, zinc, and/or alloys thereof. The metals are in the form of fine powders having a particle size of up to 100 microns. [SM]

SUB CODE: 11/ SUBM DATE: 14May62/ ATD PRESS: 4222

Card 1/1

UDC: 621.892.84

18(5), 25(5)

SOV/125-59-9-1/16

AUTHOR: Kazimirov, A.A., Candidate of Technical Sciences,
Bondar', V.Kh., Meshkov, V.V., and Lozovsky, V.P.,
Engineers

TITLE: Three-Electrode Automatic Welding of Fillet and Groove
Welds under Powder Flux

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 9, pp 3-12 (USSR)

ABSTRACT: In large serial production of structures with long
welds, such as beams, columns, tubes, wings, etc., the
speeding-up of the welding process plays an important
role. This impelled the Institute of Electric Welding
imeni Ye.O. Paton, to carry out systematic research
on welding under forced conditions. In 1946-1948, the
Institute worked out the process of automatic welding
under powder flux permitting making the longitudinal
groove welds at a speed of 100-120 m/hour. Later on,
the process of double-arc welding was introduced and
raised the welding efficiency up to 150 m/hour. In

Card 1/3

SOV/125-52-9-1/16

Three-Electrode Automatic Welding of Fillet and Groove Welds under Powder Flux

1955-1956, research on technology of three-electrode automatic welding of large-section double-T beams was conducted. On the basis of experiments, it was determined that groove welding of beams having wallsides 8-20 mm thick, (Fig 1), can be accomplished by the three-electrode method at a speed of 100-180 m an hour. Three-electrode welding can be performed using a 3-6 mm electrode wire; for this purpose both direct and alternating current can be applied. Welding with the first electrode provides good results independently of whether its current differs from that of the other two arcs. The first arc heats the edges to be welded, the second and the third increase the depth and width of fusing; combined action of all three electrodes permits welding at high speeds, which are unattainable when other methods of arc welding are used. Tables 1 and 2 give specific conditions of welding for two-sided groove-welds. The three-electrode process enables

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SOV/125-59-9-1/16

Three-Electrode Automatic Welding of Fillet and Groove Welds under Powder Flux

performing of high quality fillet welds at a speed up to 100 m/hour, provided the carbon content in welds is under 0.13%; the groove welding speed can be brought up to 180 m/hour. Automatic three-electrode welding is a variety of three-phase welding and possesses all the advantages of the latter. Chemical composition of the weld metal and its mechanical properties can be regulated within broad limits by using electrodes of different makes and diameters. There are 4 graphs, 10 tables 3 diagrams and 5 references, 4 of which are Soviet and 1 German.

ASSOCIATION: Ordena trudovogo krasnogo znameni institut elektrosvarki imeni Ye. O. Patona AN USSR (Order of the Red Banner of Labor Institute of Electric Welding imeni Ye.O. Paton AS Ukr SSR)

Card 3/3

SUBMITTED: April 8, 1959

~~25(1)~~ 18.7200

80267

S/125/60/000/04/012/018
D003/D006

AUTHOR: Chvertko, A.I., Meshkov, V.V. and Lozovskiy, V.P.
TITLE: Three-Arc Welding of Butt and Angle Welds in Production of Welded Beams
PERIODICAL: Avtomaticheskaya svarka, 1960, Nr 4, pp 78-81 (USSR)
ABSTRACT: Institut elektrosvariki (the Electric Welding Institute), or ("IES") has been consistently working on the development of high-speed welding methods, and during 1946-1959, it developed two-arc process for the use in special pipe-welding work shops, created by "IES" for this purpose. The two-arc process, allows welding at speeds of 100 to 150 m/hr, and was described previously /Ref. 1,27, and is used for welding RR gondola car beams and ship hull sections /Ref. 37. During 1956-1959, "IES" developed a fully automatic welder -"A-615", /Photo, figure 17

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S/125/60/000/04/012/018
D003/D006

Three-Arc Welding of Butt and Angle Welds in Production of Welded Beams

working with three arcs simultaneously. The welder consists of a self-propelling "bicycle" carriage with a vertical and a horizontal telescopic rods and three welding heads suspended to the vertical rod. Welding speed is adjustable between 38 and 200 m/hr by shift gears; current up to 2,000 amp and wire of 3, 4 and 5mm diameter can be used. The electrode holders swing freely to follow the outline of work; a special copying device with rollers copies the work in vertical direction. The machine is fully automatic, and can be switched over to semi-automatic or hand controls. Data on welding process is given. To take up the welding pool crater at the beam end, a plate of 150-200 mm is used (Figure 2). The "A-615" welder

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S/125/60/000/04/012/018
D003/D006

Three-Arc Welding of Butt and Angle Welds in Production of Welded Beams

has passed laboratory and shop tests. Several welders of this type were produced for a beam welding line at the zavod im. Babushkina (Plant imeni Babushkin) in Dnepropetrovsk. There are 3 photographs, 1 drawing, and 4 Soviet references.

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektro-svarki im Ye.O. Patona AN USSR (Order of the Red Banner of Labor Electric Welding Institute imeni Ye.O. Paton of the AS UkrSSR).

SUBMITTED: 22 Dec 1959

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1.2300 also 1573

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S/125/60/000/011/008/016
A161/A133

AUTHORS: Kazimirov, A.A., Lozovskiy, V.P., and Meshkov, V.V.

TITLE: The technique of beginning and ending the seam in automatic three-arc submerged arc welding

PERIODICAL: Avtomaticheskaya svarka, no. 11, 1960, 49-51

TEXT: The automatic three-arc process developed by the Electric Welding Institute im.Ye.O.Paton had been described previously (Ref.1, "Avtomaticheskaya svarka", No.9, 1959), and also the three-arc welder "A-615" (Ref.2, "Avtomaticheskaya svarka", No.4, 1960). Fillet welds on T-joints and butt welds can be welded with a speed of 100 and 180 m/hr respectively. The major feature of the process are three electrodes in line moving simultaneously along the seam, with the first electrode far ahead of the two others. Special means were needed to reduce to a minimum the length of spoiled seam ends. It was found that the first arc must be ignited only after the welder has gained the operating speed, and the welding transformers must have a

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high idle-run voltage to make the ignition dependable. For 1,100-1,700 amp on the first arc a reliable ignition is obtained with transformers of 90 ÷ 110 v idle-run voltage. The second and third arc must be ignited simultaneously at the same spot where the first arc had been ignited before. Practically the time between the ignition of the first arc and the two following is 3.5-6 sec. The second and third arcs need transformers with lower idle-run voltage for the metal is already fused by the first arc. The loose plank for the welding start must be 120 mm long. The welding start had to be automated to simplify it and not make depending on the skill of the operator. Various electrical and electro-mechanical systems may be used. The "A-615" apparatus (Ref.2) has an electro-mechanical starting system, using limit switches in the control circuits of electric motors driving the welding heads. The limit switches are moving with the welder and closing the control circuits by contacting a fixed plank. The system proved reliable in tests. The welding of the seam end in three-arc process is difficult because of a long molten metal pool, up to 450 mm. The crater would be too long if all arcs were extinguished simultaneously. The problem was solved by using the sequence illustrated in the diagram, stopping the feed of separate electrodes in turn, and reducing the welding speed by steps. All

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welding operations on the crater portion of the seam are completed on a lead-out plank. As seen in the diagram, the feed of the first electrode ceases after the first arc has passed 20-35 mm on the lead-out plank. The process is continued with the second and third arc. As soon as the metal fused with the first arc is welded through by the two remaining arcs, the welding speed drops to 31.5 m/hr and is continued on 5-35 mm with two arcs. Then the feed of the third electrode stops, and 10-15 mm of the seam end are welded with the second arc alone. With a 150 mm long lead-out plank the crater is removed completely from the work. The process must be stopped 30-40 mm before the plank end to prevent spilling of liquid metal and slag. The automation principle for the seam end is same as for the beginning. There is 1 figure and 2 Soviet references.

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvariki im.Ye. O.Patona AN USSR ("Order of the Red Banner of Labor" Electric Welding Institute im.Ye.O.Paton of the Academy of Sciences of the UkrSSR

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ACC NR: AP7001398

(A)

SOURCE CODE: UR/0413/66/000/021/0074/0074

INVENTOR: Lebedev, V. K.; Yavorskiy, Yu. D.; Shcheglov, V. D.; Lozovskiy, V. P.;
Novliyan, G. A.

ORG: none

TITLE: A method of spot or seam welding of laminated structures. Class 21,
No. 187899 [announced by the Electric Welding Institute im. Ye. O. Paton (Institut
electrosvarki)]

SOURCE: Izobreneniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 74

TOPIC TAGS: laminated metal structure, honeycomb structure, structure spot
welding, structure seam welding, *laminated material, spot welding*

ABSTRACT: This Author Certificate introduces a method of spot or seam welding
laminated, predominantly honeycomb, structures with the use of a current-conducting

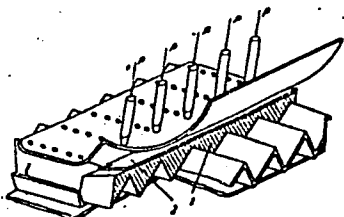


Fig. 1. Spots welding method

1 - Insert; 2 - insulation.

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UDC: 621.791.763-419

ACC NR: AP7001398

insert between the elements being welded. To improve the weld quality, the welding current is fed to only one element being welded (see Fig. 1), and the insert in the form of a comb is insulated from this element and is shifted as the welding of the elements progresses. Orig. art. has: 1 figure. [MS]

SUB CODE: 13/ SUBM DATE: 10Sep65/ ATD PRESS: 5110

Card 2/2

ACCESSION NR: AT4033567

S/2922/63/009/000/0242/0247

AUTHOR: Struzer, L. R.; Lozovskiy, V. V.

TITLE: Some experimental data on the behavior of inertia temperature sensors in an anisotropically turbulent air flow

SOURCE: Vsesoyuznoye nauchnoye meteorologicheskoye soveshchaniye. 1st, Leningrad, 1961. Pribery* i metody* nablyudeniya (Instruments and methods of observation); trudy* soveshchaniya, v. 9. Leningrad, Gidrometeoizdat, 1963, 242-247

TOPIC TAGS: meteorology, air turbulence, atmospheric surface layer, meteorological instrument, atmospheric gradient measurement, air temperature

ABSTRACT: The method presently used for making gradient measurements -- visual readings of temperature on the mercury thermometers of aspiration psychrometers at two or more levels -- is extremely difficult and is characterized by considerable systematic and random errors. The Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory) carried out experiments in 1959-1960 for improvement of the method. Parallel measurements were made using different instruments and various techniques. This report deals with the results of temperature gradient measurements. Ordinary aspiration psychrometers were used, as well as thermoelectric gradient meters in which one junction of the thermocouple was at the 0.5 m

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ACCESSION NR: AT4033567

level and the other at the 2.0 m level. The gradient meter designed by M. A. Kaganov, with semiconductor sensing elements, also was used. The principal difference in these instruments is the inertia of the sensing elements. In the thermoelectric gradient meter it was about 1 second, for the mercury thermometers of the psychrometers it was 18-20 seconds, and for the semiconductor thermometers of the Kaganov gradient meter it was 40-60 seconds. There was a large difference between the readings of the psychrometers and the thermoelectric gradient meters. The following characteristics were noted: 1) at night both instruments give identical values of temperature and humidity gradients; 2) during the day the temperature gradients measured with the gradient meter were up to 0.15C greater than the values indicated by the psychrometers; 3) in the region of positive values of the humidity gradient $\Delta e > 0.5$ mb both instruments give virtually identical humidity gradients; 4) at $\Delta e < 0.5$ mb there is a sharp systematic exaggeration of the readings of the gradient meter in comparison with the psychrometer data. Only speculations can be made with respect to the noted systematic errors of psychrometers. It appears that low-inertia temperature sensors, and very inert sensors as well, should give correct gradient values, whatever the frequency of fluctuations of temperature and wind velocity, but sensors with some intermediate inertia will introduce appreciable distortions. Results of gradient

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ACCESSION NR: AT4033567

observations clearly are dependent on the inertia of the sensors. Orig. art. has:
5 figures.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory)

SUBMITTED: 00

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: ES

NO REF SOV: 003

OTHER: 000

Card 3/3

L 05273-67 EWT(d)/EWP(1) IJP(c) BB/GG
ACC NR: AR6023997

SOURCE CODE: UR/0372/66/000/003/G042/G042

AUTHOR: Ilovayskiy, V. S.; Lozovskiy, V. S.; Fet, Ya. I.

TITLE: Use of address language to automate the synthesis of digital computers

SOURCE: Ref. zh. Kibernetika, Abs. 3G315

REF SOURCE: Sb. Vychisl. sistemy. Vyp. 18. Novosibirsk, 1965, 34-71

TOPIC TAGS: computer language, memory address, algorithm, *digital computer*

ABSTRACT: One of the possible methods of automating the synthesis of the symbolic circuit of digital computers on the basis of a specified system of instructions is considered. An algorithm (A) for transition from the recording of computer instructions in the address language to a symbolic circuit in the form of a system of logic equations is proposed. The starting premise for constructing A is the condition of the performance of all the instructions by a single device. A applies to the construction of the symbolic circuits of computers for which the following starting characteristics are specified: number of memory elements, capacity of each memory element and method of access; method of presentation of numbers, format of numbers; addressability; method of presentation of modified instructions; system

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UDC: 62-506:681.142:621.3.001.1:51

L 05273-67

ACC NR: AR6023997

of instructions; principle of organization of the time flowchart; duration of every operation, expressed in conditional units. The operation of A is illustrated by describing the synthesis of an elementary computational system. 13 illustrations, 10 tables. Bibliography of 10 titles. Yu. U. [Translation of abstract]

SUB CODE: 05, 09/

Card

2/2 *eqh*

L 24396-65 EWT(1)/EWP(m)/FCC/EWA(d)/FCS(k)/EWA(1) Pd-1 GW

ACCESSION NR: AR4047584

S/0169/64/000/009/8009/8009

SOURCE: Ref. zh. Geofizika, Abs. 9B75

AUTHOR: Struzer, L. R.; Lozovskiy, V. V.

TITLE: Some experimental data on the behavior of inertial temperature sensors in an anisotropically turbulent air flow

CITED SOURCE: Tr. Vses. nauchn. meteorol. soveshchaniya, 1961. T. 9. Gidrometeoizdat, 1963, 242-247

TOPIC TAGS: temperature sensor, atmospheric temperature gradient, atmospheric surface layer, thermocouple, aspiration psychrometer, temperature gradient meter, atmospheric convection

TRANSLATION: The authors carried out experimental measurements of vertical temperature gradients in the surface layer of the atmosphere using various instruments: thermocouple, aspiration psychrometer, and a transistorized gradient meter. Their principal difference is in the inertia τ of the sensing elements: the values are 1, 18-20 and 40-60 seconds, respectively. The maximum errors, attaining 0.8° for large Richardson numbers, are in the readings of the mercury

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thermometers of aspiration psychrometers. The fact of the lower temperature with-
in an inertial sensor in comparison with the mean temperature of a gas flow with
a fluctuating temperature and velocity was known earlier. By studying the
dependence of the lowering of this value on the frequency of temperature
fluctuations, the authors arrived at the following explanation of this pheno-
menon. The coefficient of heat transfer of the sensor is related nonlinearly
to the velocity of flow. There is a correlation between the frequencies of
fluctuations of velocity and temperature. Therefore, in the first half of the
cycle, there is an increased heating of the inertial sensor, and in the second
half there is a decreased cooling. If the fluctuations of the temperature of
the medium and the heat transfer coefficient are in antiphase the distortions
are negative, as occurs in the surface sublayer during convection. Experiments
have shown that the deviations are small when $\mathcal{E}\omega$ (ω is the frequency of fluctu-
ations) is small and large when $\mathcal{E}\omega$ is large, but are not dependent on ω . For
some mean value $\mathcal{E}\omega$ the distortions increase monotonically with an increase in
 ω . This means that instruments with small and large inertias for all practical
purposes give a true value of the gradients, but those with intermediate inertia

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ACCESSION NR: AR4047584

give an untrue value because with increasing height there is a great change in
ω . V. Kadyshnikov

ASSOCIATION: None

SUB CODE: ES

ENCL: 00

Card 3/3

LOZOVSKIY, Yu.U., gornyy inzh.

Selecting the optimum positioning of bridge excavators during the parallel advancing of the working face in connection with the modernization of the "Semenov-Golovkovskii" mine. Ugol' 40 (MIRA 18:10)
no.9:26-27 S '65.

LOZOVVIK, V.G. [Lozovyk, V.H.]

Functions with bounded rotation in a unit circle. Dop. AN
URSR no. 12:1584-1588 '60. (MIRA 14:1)

1. Kiyevskiy politekhnicheskii institut. Predstavleno akademikom
AN USSR B.V. Gnedenko.

(Symmetric functions)

LOZOWSKA-OGORZEJSKA, Teresa (Gdynia--Szpital Miejski, ul. Migdaly 1.)

Vesicovaginal fistula as a sequel of gynecological procedures. Gin.
polska 29 no.3:291-295 May-June 58.

1. Z Oddziału Chorob Kobięcych Miejskiego Szpitala w Gdyni Ordynator:
prof. dr J. Subrzycki.

(FISTULA, VESICOVAGINAL, surg.

of postop. fistula after hysterectomy (Pol))

(HYSTERECTOMY, compl.

postop. vesicovaginal fistula, surg. (Pol))

25346

S/021/61/000/007/003/011
D205/D306

24.4200

AUTHORS: Panasyuk, V.V., and Lozovyy, B.L.

TITLE: Determining the magnitude of ultimate stress for a plate with two cracks of equal length

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR, Dopovidy, no. 7, 1961, 876 - 879

TEXT: An infinite plate with two cracks of equal length is considered. Let these cracks be parallel to the axis Ox (Fig. 1) and let tensile stresses $\sigma_y^\infty = \sigma_\infty$ ($= \text{const}$), perpendicular to the line on which the cracks are situated, act at infinitely far points of the plate. The system chosen is of Cartesian coordinates as shown in Fig. 1 denoting the abscissae of the ends of the cracks by $(-b, -a)$ and (a, b) respectively. The length of each crack is $2l = (b - a)$, and the distance between the cracks is $2a$. It is supposed that the material of the plate obeys Hooke's law. For such a case the magnitude of the stresses is determined

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Determining the magnitude ...

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$$\sigma_k = \min \sigma_{\infty}, \quad (1)$$

at which there appears an increase of the length $2l$ (extension) in both cracks. The stresses are called σ_k critical or ultimate. To determine the stresses σ_k A.A. Griffith's energetical method is used as proposed in this paper (Ref. 1: Theory of Rupture, Proc. First. Congr. Appl. Mechanics, Delft, 1924, p. 55). According to Griffith's theory the stresses σ_{∞} will be critical (ultimate), if the condition

$$\frac{\partial}{\partial t} (U - A) = 0 \quad (2)$$

is fulfilled. U being the surface energy of the expanding crack and A the magnitude of elastic energy released due to expansion of the crack. The magnitude of surface energy of the crack for this problem (Fig. 1) can be written

$$U = 4(b - a)hT = 8lhT. \quad (3)$$

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T being the intensity of the surface energy of the body and h the thickness of the plate. The magnitude (A) of the decrease (release) of the elastic energy of the body is known (Ref. 2: L.C. Leybehzon, Kurs teorii uprugosti, Gostekhizdat, 1947), (Ref. 3: V.V. Panasyuk, Prykladna Mekhanika, 4, 14, 1960) to be equal to the work of the external forces on one half of their generalized displacements. Fig. 2 represents the stresses

$\sigma_{kp}^{(b)}$ and $\sigma_{kp}^{(a)}$

as functions of the ratio a/l . From these diagrams it follows that the critical (ultimate) stresses σ_k for a plate with two cracks of equal length situated at a distance $2a$ will be

$$\sigma_k = \begin{cases} \sigma_{kp}^{(a)} & \text{if } \sigma_{kp}^{(a)} > \sigma_k^{(h)} \\ \sigma_k^{(h)} & \text{if } \sigma_{kp}^{(a)} \leq \sigma_k^{(h)} \end{cases} \quad (17) \quad \times$$

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